

CLAIMS

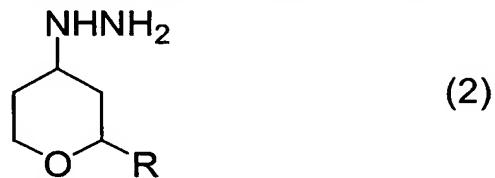
1. A process for preparing a 4-aminotetrahydropyran compound represented by the formula (1) :



5 wherein R represents a hydrogen atom or a hydro-carbon group,

or an acid salt thereof,

which comprises subjecting a 4-hydrazinotetrahydropyran
10 compound represented by the formula (2) :



wherein R has the same meaning as defined above,
or an acid salt thereof

15 to decomposition reaction in the presence of at least one compound selected from Raney nickel, a noble metal catalyst and a metal oxide.

2. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 1, wherein the noble metal catalyst is a catalyst containing
20 at least one of palladium and platinum.

3. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 1, wherein the metal oxide is copper (I) oxide or copper (II) oxide.

25 4. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 1, wherein the reaction is carried out in a solvent.

30 5. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 4, wherein the solvent is water, an alcohol, or a mixed

solvent thereof.

6. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 1, wherein the compound represented by the formula (2) is a
 5 compound obtained by reacting a 4-substituted-tetrahydropyran compound represented by the formula (3):



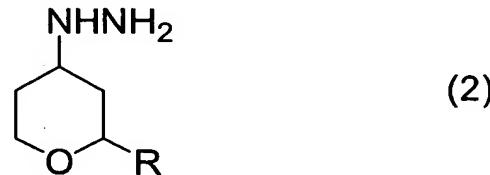
wherein R has the same meaning as defined above, and X represents a leaving group,

10 with a hydrazine.

7. A process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof, which comprises
 (A) the first step of reacting a 4-substituted-tetrahydropyran compound represented by the formula (3):



15 wherein R represents a hydrogen atom or a hydrocarbon group, and X represents a leaving group, with a hydrazine to prepare a 4-hydrazinotetrahydropyran compound represented by the formula (2):



20 wherein R has the same meaning as defined above, or an acid salt thereof,

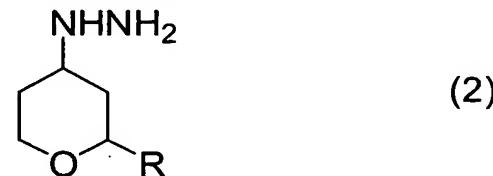
- (B) then, the second step of decomposing the 4-hydrazinotetrahydropyran compound or an acid salt thereof in the
 25 reaction mixture in the presence of at least one compound selected from Raney nickel, a noble metal catalyst and a metal oxide to prepare a 4-aminotetrahydropyran compound

represented by the formula (1):



wherein R has the same meaning as defined above.

8. The process for preparing a 4-aminotetrahydropyran
5 compound or an acid salt thereof according to Claim 7,
wherein the first step is carried out in a solvent.
9. The process for preparing a 4-aminotetrahydropyran
compound or an acid salt thereof according to Claim 7,
wherein the solvent used in the first step is an alcohol
10 derivative.
10. The process for preparing a 4-aminotetrahydropyran
compound or an acid salt thereof according to Claim 7,
wherein the second step is carried out in a solvent.
11. The process for preparing a 4-aminotetrahydropyran
15 compound or an acid salt thereof according to Claim 10,
wherein the solvent used in the second step is water, an
alcohol or a mixture thereof.
12. The process for preparing a 4-aminotetrahydropyran
compound or an acid salt thereof according to Claim 7,
20 wherein an amine is used at the time of removing the Raney
nickel from the reaction mixture after completion of the
reaction at the second step.
13. A 2-substituted-4-hydrazinotetrahydropyran compound
represented by the formula (2):



- 25 wherein R represents a hydrogen atom or a hydro-
carbon group,
or an acid salt thereof.

14. A 2-substituted tetrahydropyranyl-4-sulfonate repre-
30 sented by the formula (4):



wherein R^1 represents a hydrocarbon group, and Y represents an organic sulfonyloxy group.

15. A process for preparing the 2-substituted tetrahydro-
5 pyranyl-4-sulfonate which comprises reacting 3-buten-1-ol
with an aldehyde compound represented by the formula (5) :



wherein R^1 has the same meaning as defined above,
a polymer thereof or an acetal compound thereof, and an
10 organic sulfonic acid.

16. The process for preparing the 2-substituted tetrahydro-
pyranyl-4-sulfonate according to Claim 15, wherein the
reaction is carried out in an organic solvent.